

PART 3. MARKINGS

CHAPTER 3C. ROUNDABOUT MARKINGS

Markings Technical Committee Recommendations
Approved by NCUTCD Council January 10 & 12, 2008

Yellow highlight indicates recommended changes to the NPA.

3C.01
Approved by
NC with
revisions to
NPA.
Approved
revision
highlighted in
yellow.

Section 3B.24 3C.01 Markings for Roundabout Intersections General

Support:

~~Roundabout intersections are distinctive circular roadways that have the following three critical characteristics:~~

- ~~A. A requirement to yield at entry which gives a vehicle on the circular roadway the right of way;~~
- ~~B. A deflection of the approaching vehicle around the central island, and~~
- ~~C. A flare or widening of the approach to allow for proper operation as needed.~~

Standard:

Roundabouts shall be defined as circular intersections that meet the following characteristics:

- A. Yield at entry to vehicles that are traveling on the circulatory roadway; and
- B. Deflection of the approaching vehicle in a counter-clockwise direction around the central island.

Pavement markings and signing at roundabouts shall present a consistent message to the road user.

Guidance:

Pavement markings and signing for a roundabout should be integrally designed to correspond to the geometric design and intended lane use of a roundabout.

Markings at roundabouts should facilitate the movement through the roundabout without requiring vehicles to change lanes within the circulatory roadway to exit the roundabout in a given direction.

Markings on roundabout approaches should be compatible with circulatory roadway markings to provide a consistent message to road users at roundabouts.

Option:

Traffic control signals (see Part 4) may be used at roundabouts to facilitate the crossing of pedestrians in crosswalks or to allow metering of traffic.

3C.02
Approved by
NC without
revisions to
NPA.

Section 3C.02 White Lane Line Pavement Markings for Roundabouts

Standard:

Multi-lane approaches to roundabouts shall have lane lines.

Bicycle lane markings shall not be provided on the circular roadway of a roundabout ~~intersection~~.

Guidance:

Bicycle lane markings should stop at least 30 m (100 ft) before the crosswalk, or if no crosswalk is provided, at least 30 m (100 ft) before the yield line, or if no yield line is provided, then at least 30 m (100 ft) before the edge of the circulatory roadway (see Chapter 9C for details.)

~~Lane lines may be used on the circular roadway if there is more than one lane.~~ Multi-lane roundabouts should have lane line markings within the circulatory roadway to channelize traffic to the appropriate exit lane.

Standard:

Continuous concentric lane lines shall not be used within the circulatory roadway of roundabouts.

3C.03
Approved by
NC without
revisions to
NPA.

Section 3C.03 Edge Line Pavement Markings for Roundabouts

Guidance:

A white edge line should be used on the outer (right-hand edited to increase clarity) side of the ~~circular~~ circulatory roadway.

If a white edge line is used for the circulatory roadway, it should be as follows (see Figure 3C-1):

- A. A solid line ~~along~~ adjacent to the splitter island, and
- B. A wide dotted line across the lane(s) entering the roundabout ~~intersection~~.

Standard:

Edge line extensions ~~should~~ shall not be placed across the exits from the ~~circular~~ circulatory roadway at roundabouts.

Option:

A yellow edge line may be placed around the inner (left-hand edited to increase clarity) edge of the ~~circular~~ circulatory roadway (see Figure 3C-1) and may be used to channelize traffic (see Figure 3C-7).

3C.04
Approved by
NC without
revisions to
NPA.

Section 3C.04 Yield Lines for Roundabouts

Option:

A yield line (see Section 3B.16) may be used to indicate the point behind which vehicles are required to yield at the entrance to a roundabout ~~intersection~~ (see Figure 3C-1).

3C.05
Approved by
NC without
revisions to
NPA.

Section 3C.05 Crosswalk Markings at Roundabouts

Standard:

Pedestrian crosswalks shall not be marked to or from the central island of roundabouts.

Guidance:

If pedestrian facilities are provided, crosswalks (see Section 3B.18) should be marked across roundabout entrances and exits to indicate where pedestrians are intended to cross.

~~Where crosswalk markings are used, these markings should be located a minimum of 7.6 m (25 ft) upstream from the yield line, or, if none, from the dotted white line.~~
Crosswalks should be a minimum of 6.1 m (20 ft) from the edge of the circulatory roadway.

Support:

Figure 3C-2 illustrates examples of layouts for crosswalk markings at roundabouts.

Section 3C.06 Pavement Word and Symbol Markings for Roundabouts

Option:

Lane use arrows may be used on any approach to and within the circulatory roadway of any roundabout.

~~YIELD AHEAD (symbol or word) and YIELD word pavement markings (see Figure 3C-1) and YIELD AHEAD (symbol or word)~~ may be used on approaches to roundabouts.

Word and/or route shield pavement markings may be used on an approach to or within the circulatory roadway of a roundabout to provide route and/or destination guidance information to road users (see Figure 3C-18).

Guidance:

Within the circulatory roadway of multi-lane roundabouts, ~~normal-standard~~ lane use arrows (see Section 3B.20) should be used.

On multi-lane approaches with double left-turn and/or double right-turn lanes, lane use arrows as shown in Figure 3C-3 should be used.

Option:

If used on approaches to a roundabout, lane-use arrows may be either ~~normal standard~~ or fish-hook arrows, either with or without an oval symbolizing the central island, as shown in Figure 3C-3.

3C.06
Approved by
NC with
revisions to
NPA.
Approved
revision
highlighted in
yellow.

Section 3C.07 Example Markings for Roundabouts

Support:

~~Figures 3C-4 through 3C-18 illustrate examples of markings for roundabouts intersections are shown in Figures 3B-27 and 3B-28~~ of various geometric and lane-use configurations.

3C.07
Approved by
NC without
revisions to
NPA.

3C.08

Approved by
NC without
revisions to
NPA.

Section ~~3B.25~~ 3C.08 Markings for Other Circular Intersections

Support:

Other circular intersections include, but are not limited to, rotaries, traffic circles, and residential traffic calming designs.

Option:

The markings shown in ~~Figures 3B-27 and 3B-28~~ this Chapter may be used at other circular intersections ~~when~~ if engineering judgment indicates that their presence will benefit drivers or pedestrians.

Document Comment Related to Approval of Indicated Text

3C.06

The order of the YIELD word marking and Yield Ahead symbol marking have been switched as the YIELD word marking is the more important of the two markings. The Yield Ahead marking cannot be used unless the YIELD word marking is used.

There is no term of “normal lane use arrows.” The proper term is “standard lane use arrow.”